

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
15 January 2004 (15.01.2004)

PCT

(10) International Publication Number
WO 2004/004956 A1(51) International Patent Classification⁷: B22F 9/18(21) International Application Number:
PCT/KR2003/001291

(22) International Filing Date: 1 July 2003 (01.07.2003)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2002-0037951 2 July 2002 (02.07.2002) KR

(71) Applicant and

(72) Inventor: OH, Jae Wan [KR/KR]; 10-306 Hanshin Apt., 193-1 Myeonmok 2-dong, Jungnang-gu, Seoul (KR).

(74) Agents: LEE, Soo Wan et al.; 1901-ho 19 Fl. Big-way Bldg. 677-25, Yeoksam-dong, Kangnam-gu, Seoul 135-914 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

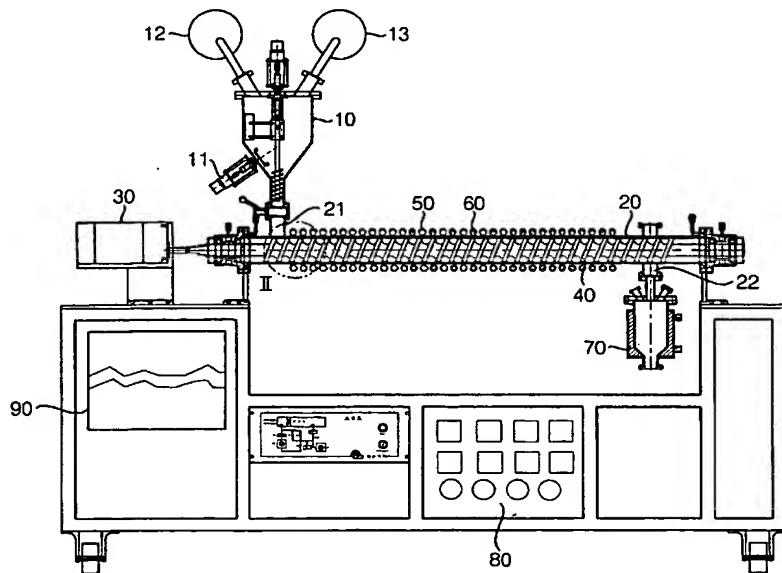
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POWDER FABRICATING APPARATUS



(57) Abstract: The present invention relates to a powder fabricating apparatus. It is an object of the present invention to provide the powder fabricating apparatus, which is capable of obtaining metal powder in a rapid and continuous fashion, various kinds of oxide, or alloy powder. The powder fabricating apparatus for achieving the object of the present invention comprises a barrel wherein an inlet and an outlet are formed at both opposite ends thereof, respectively; a screw which is rotationally mounted in the barrel and by which reactant supplied from the inlet moves toward the outlet; a driving portion for causing a relative rotational motion between the screw and the barrel; reaction control means for controlling reaction conditions of the reactant which moves in the barrel; and a controller for controlling the driving portion and the reaction control means.

WO 2004/004956 A1

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR03/01291

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 B22F 9/18

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65G 33/10, G10H 1/34, C08G 61/12, C04B 35/26

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Korean Patents and applications for inventions since 1975. Korean Utility models and applications for Utility models since 1975.
 Japanese Utility models and applications for Utility models since 1975.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 NPS, PAJ, PATROM

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2000-233817 A (SHBUYA INDUSTRY CO., LTD.) 29 AUGUST 2000 see entire document.	1, 10, 11, 12, 13
A	JP 11-212572 A (YAMAHA CO., LTD.) 6 AUGUST 1999 see entire document.	1
A	KR 2002-34723 A (O, UNG JU) 9 MAY 2002 see entire document.	16
A	KR 96-22384 A (RESEARCH INSTITUTE OF INDUSTRIAL SCIENCE) 18 JULY 1996 see entire document.	16

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

15 OCTOBER 2003 (15.10.2003)

Date of mailing of the international search report

15 OCTOBER 2003 (15.10.2003)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon 302-701,
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

SEO, Jae Yeop

Telephone No. 82-42-481-5526

